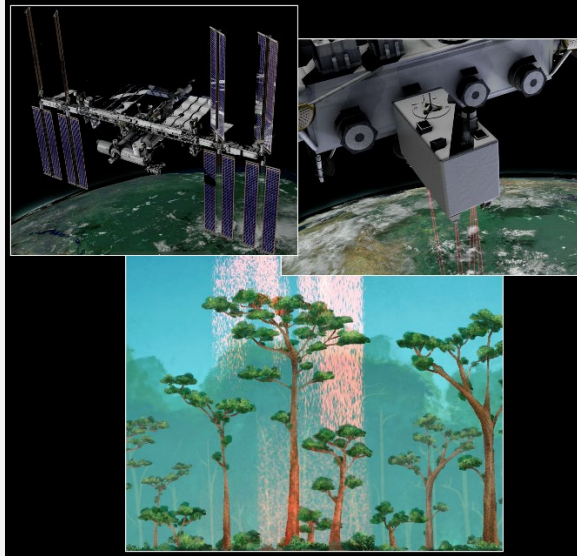


Forest Health Research Program Grantee Webinar:

# Space lasers don't ignite wildfires, but they can help monitor fuels and reduce risk

Matthew Clark, PhD, Sonoma State University

Christopher Hakkenberg, PhD, Northern Arizona University



**Monday, November 25, 2024**

3:00 pm – 4:00 pm

[Register here](#)

**Abstract:** The NASA Global Ecosystem Dynamics Investigation (GEDI) spaceborne lidar provides 3D information on forest structure at near-global scales. This talk will discuss how GEDI lidar can assess wildfire burn severity in California's forests. We first show that GEDI estimates of vertical fuel continuity, especially ladder fuels, outperform total canopy volumes to predict wildfire severity even with extreme weather. We next pair pre- and post-fire GEDI shots and conclude the technology can detect both canopy and sub-canopy structural changes, with the greatest change driven by pre-fire fuel levels.



**Dr. Matt Clark** is a professor in Geography, Environment, and Planning at Sonoma State University. His research is focused on using novel forms of remote sensing for monitoring biodiversity, assessing land change, and helping conservation and land management. **Dr. Chris Hakkenberg** is an Assistant Research Professor at Northern Arizona University. He is a remote sensing ecologist who examines cross-scale patterns and processes among forest structure, wildfire dynamics, and biodiversity.



The Forest Health Research Program is part of [California Climate Investments](#), a statewide initiative that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment — particularly in disadvantaged communities.

